

Transportation Advisory Committee

Date: March 24, 2023

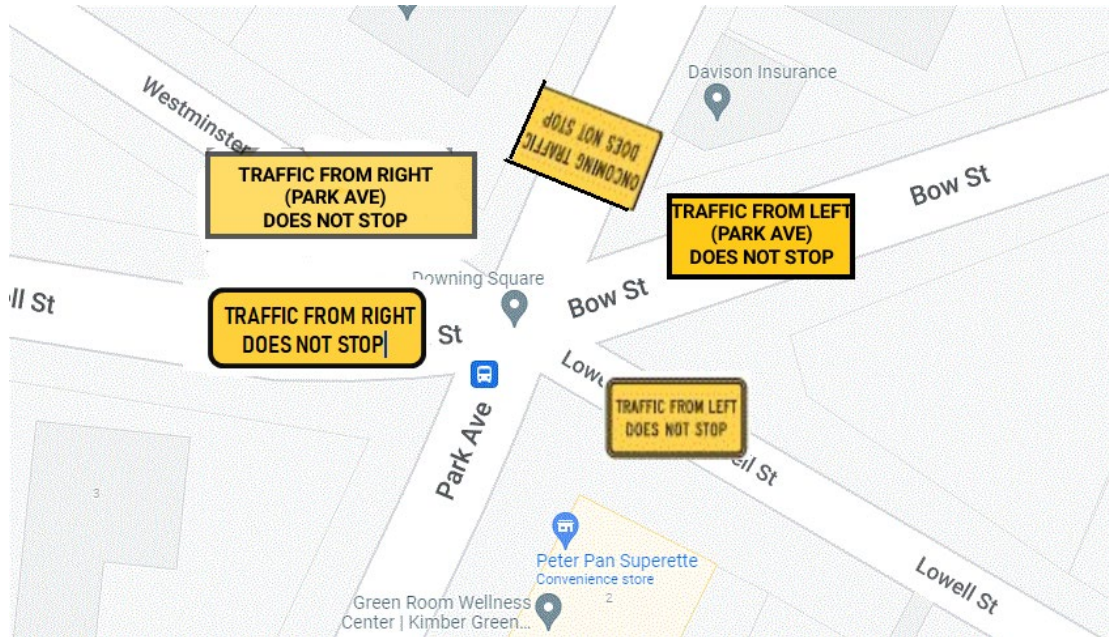
From: Downing Square Signage Working Group

To: Transportation Advisory Committee

Subject: Signage at Downing Square - DRAFT

Summary and Recommendations

A TAC working group has developed suggestions for improved signage in Downing Square (the intersection of Park Avenue, Lowell Street, Westminster Avenue, Park Avenue Extension, and Bow Street), in response to a letter transmitted to the Select Board from an Arlington resident. The resident expressed concerns about confusing conditions at the intersection, noting that “Cars going north on Park Ave will sometimes stop when they don't need to and cars on the other roads will often pull out in front of cars going north at Park Ave.” The resident’s letter identified several types of potential improvements for consideration, including clarifying signage and, as another option, installing a new traffic signal. The TAC focused the current study effort on potential signage options only, because extensive earlier study efforts performed by the TAC in conjunction with Town



departments had determined that signalization options would not perform well, resulting in excessive delays and failing to improve safety^{1, 2}

Preferred Option: The TAC working group recommends new advisory signage, in addition to the existing stop signs on Lowell Street, Westminster Avenue, Bow Street, and Park Avenue Extension (southbound), clarifying that traffic on Park Avenue northbound does not stop. The preferred signage plan, subject to concurrence by Town Police, Public Works, and Planning departments, is shown in the graphic above.

¹ TAC Downing Square Recommendations to BoS, 10/5/2009

² TAC Downing Square Update to BoS, 2/12/2012

Thus, the suggested text under this option, for each sign, would be:

- Lowell St. eb: TRAFFIC FROM RIGHT DOES NOT STOP
- Westminster Ave. eb: TRAFFIC FROM RIGHT (PARK AVE) DOES NOT STOP
- Lowell St. wb: TRAFFIC FROM LEFT DOES NOT STOP
- Bow St. wb: TRAFFIC FROM LEFT (PARK AVE) DOES NOT STOP
- Park Ave. Extension sb: ONCOMING TRAFFIC DOES NOT STOP

The signs on Westminster Avenue and Bow Street would both specify that it is the traffic on Park Avenue that does not stop. In the absence of this clarification, drivers on Westminster Avenue and Bow Street may be confused when they see that the traffic on Lowell Street does stop and possibly this situation actually could exacerbate existing confusion.

The new signs would be placards, of a type in the Manual on Uniform Traffic Control Devices (MUTCD), placed below the existing stop signs on the same poles, at least 7 feet above the ground, to avoid visual obstruction.

Alternative Option: Post the new signs *only on Lowell Street, on both eastbound and westbound approaches, and on Park Avenue Extension*, with no new signage on Bow or Westminster Streets, as follows:

- Lowell St. (eastbound): TRAFFIC FROM RIGHT DOES NOT STOP
- Lowell St. (westbound): TRAFFIC FROM LEFT DOES NOT STOP
- Park Ave. Extension (southbound): ONCOMING TRAFFIC DOES NOT STOP

The rationale for omitting the new signs on Westminster Avenue and Bow Streets would be (1) avoiding possible signage “clutter” in the form of the extra text on signs to specify that the traffic not stopping is on Park Avenue, i.e. “(from Park Avenue),” (2) the need for signs on Westminster Avenue and Bow Street may be less because they carry less traffic than Lowell Street.

No Action Option: One final option would be “no action” – no new signs posted. As noted previously, the working group recommends the first option, as depicted in the graphic above.

Existing Conditions

Downing Square has six intersecting roadways consisting of Park Avenue, Lowell Street (2 approaches, eastbound and westbound), Westminster Avenue, Park Avenue Extension, and Bow Street. The intersection is confusing due to the number of intersecting roadways and problems have long been recognized. The TAC has conducted rigorous studies of intersection operations at Downing Square and a set of improvements were implemented in about the years 2013 – 2014, consisting of tightened corners with bump-outs, ADA-compliant pedestrian ramps, added stop lines, replacement of angled to parallel on-street parking, added flashing beacon and signage, new street lighting, and repaved intersection.

Following are annual crash data for the years 2010 through 2023.³

Downing Square Accidents 2010-2023				
Year	Property Damage	Non-Fatal Injury	Unknown or Unreported Severity	Total
2010	4		2	6
2011	3		1	4
2012		1	1	2
2013	1	1	1	3
2014	1		1	2
2015	1	1	1	3
2016	3	1		4
2017				0
2018	2		1	3
2019	2			2
2020	3			3
2021	1	1		2
2022		1		1
2023	2			2

The data show that there have been between 0 and 6 reported crashes per year over the 14-year survey period. The data does not include unreported crashes or near misses. Before the construction of the most recent improvements (2010-2013), Downing Square averaged almost 4 crashes per year. After the improvements (2014-2023), Downing Square averaged a little over 2 crashes per year. The crashes tend not to be severe, probably because traffic speeds are low and most drivers adhere to existing stop signs.

The recommended additional signage may help to clarify right of way priority for individual approaches at the intersection, alleviating some of the current confusion and resulting indecision among drivers and others crossing through the intersection.

³ Massachusetts Department of Transportation Crash Data Portal